

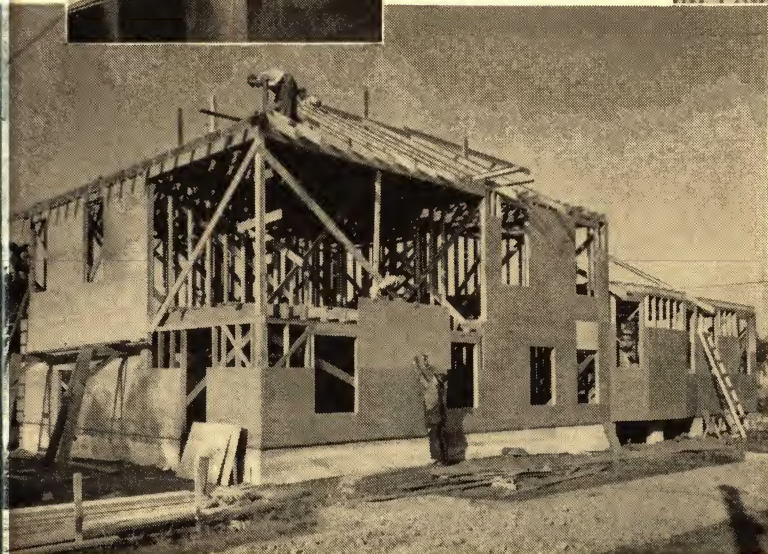


# **dri-bilt**

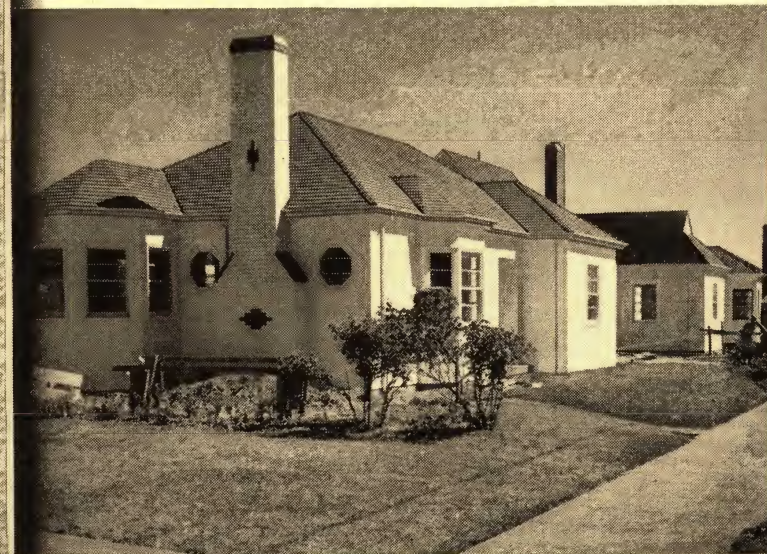
**WITH PLYWOOD**

TRADE  
MARK

REG. U. S. PAT.  
OFF. PEND.



GENUINE  
**PLYWALL**  
Douglas Fir Plywood  
WALLBOARD  
C. W.  
TED.



# ***A Better Way to Build!***

**DOUGLAS FIR PLYWOOD ASSOCIATION, TACOMA, WASH.**



# Why dri-bilt WITH PLYWOOD is Better!

Dri-Bilt is an improved type of construction that develops speed and economy and utilizes conventional materials stocked by lumber dealers throughout the country.

Dri-Bilt means dry-wall construction, it eliminates 1,000 gallons of water—and its attendant evils—from the average 6-room house. (U. S. Government report).

Dri-Bilt employs standard lumber framing and large, rigid panels of Douglas fir plywood for interior walls and ceilings. For additional structural superiority, plywood is used also for sheath-

ing walls and roofs, as well as for sub-flooring.

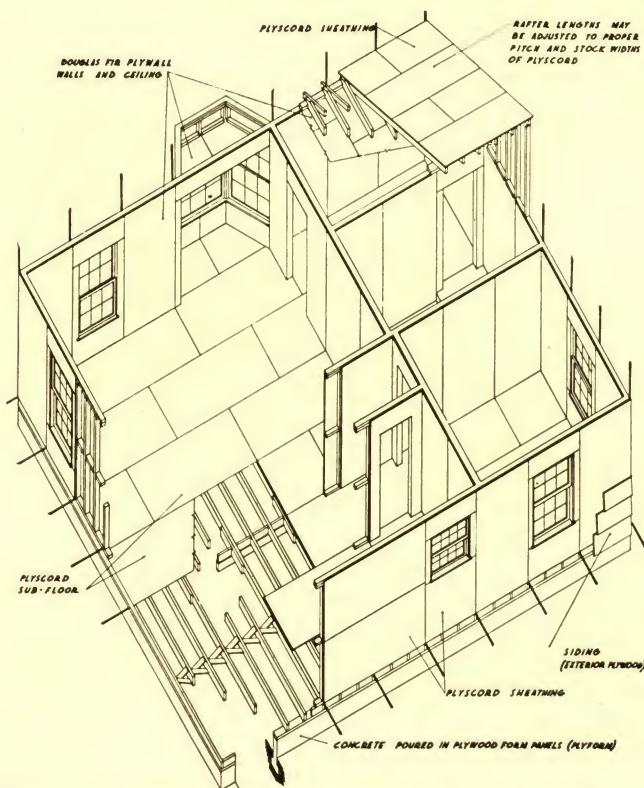
Dri-Bilt with plywood construction is adapted to any house or any plan, from cottage to mansion. Dri-Bilt with plywood walls are warm and air-tight. Wintry blasts cannot penetrate Douglas fir plywood. Moreover, plywood walls are puncture-proof and crack-proof, and maintenance costs are consequently minimized.

Dri-Bilt with plywood, with the new finishing technique, reveals the soft inherent beauty of Douglas fir and brings the luxury of genuine wood paneling within everyone's reach.

Plywood walls may also be felted and papered, covered with plastic finishes, bathroom wall-tile, or painted.

Finally, Dri-Bilt with plywood saves the builder's time in completing his houses . . . often as much as 4 to 6 weeks. This means lower financing charges, allows for more rapid turnover of capital invested in building operations and puts the client in his new home sooner.

## It's Easy to Build the Dri-Bilt Way! Here's How!



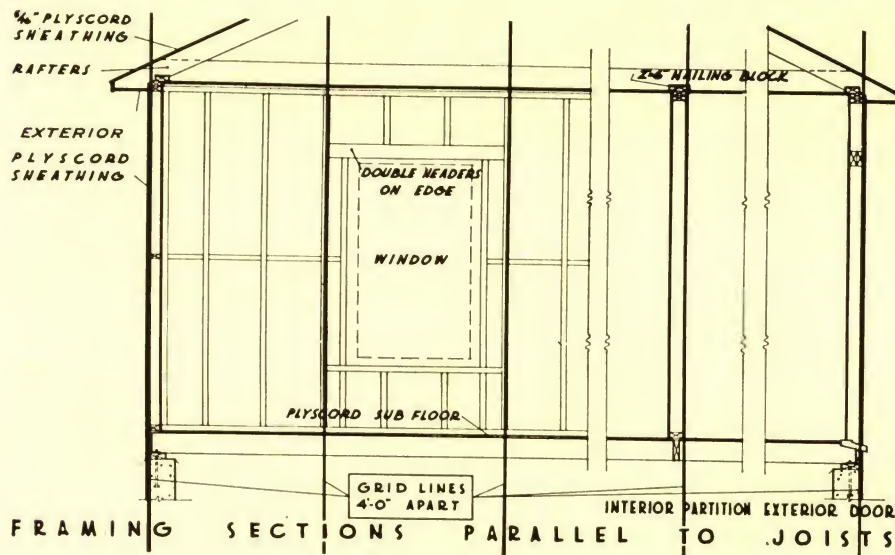
NOTE: Lines extending beyond framework are guide lines or grid lines, 4' apart, to show how standard 4' x 8' panels may be placed.

1. Use standard lumber framing with studs and joists 16" on centers. This lumber should be kiln-dried to prevent later twisting of frames.
2. Use 5/16" PLYSCORD Sheathing over the studs.
3. Use 5/16" or 3/8" PLYSCORD sheathing over rafters.
4. Use 5/8" PLYSCORD for sub-floors—you can cut your costs of laying in half.
5. Use 3/8" PLYWALL (wallboard grade) for all interior walls and ceilings. Some prefer the more economical 1/4" PLYWALL.
6. For special rooms where highest quality of panel is desired, use PLYPANEL in Good-1-Side Classification, 3/8" or 1/4" thick.
7. With concrete basement, you can use 5/8" PLYSCORD sheathing to form a smooth, inside wall, then re-use the Plyscord for the sub-flooring or roof sheathing.
8. For plywood exteriors, use the "Exterior" Douglas fir plywood, with the strictly water-proof bond.



## Standard Construction

Dri-Bilt with Plywood uses the conventional lumber frame and U. S. Commercial Standard grades of Douglas fir plywood.



The plywood and the lumber are available from lumber dealers throughout the country.

### USED with any EXTERIOR:

Plyscord sheathing, 5/16" thick, is used over the studs. Wood siding or shingles, Exterior plywood panels or siding, or masonry veneer may be used over the Plyscord.

**ROOFS:** Use 5/16", 3/8" or 5/8" Plyscord, depending on rafter spacing and anticipated snow loads, etc. Here are recommended thicknesses:

Five-sixteenths is suitable for rafters 18" apart and roof loads up to 20 pounds per square foot; use 3/8" for rafters 16" apart and loads up to 40 pounds per square foot; use 5/8" for rafters 24" apart and loads up to 40 pounds per square foot.

**SUB-FLOORS:** Use 5/8" Plyscord for ideal working platform, maximum rigidity, and warm airtight floors.

**NAILING:** Nailing costs are reduced about 50% when Plyscord is used for sheathing, and the wall is made much more rigid and sturdy.

The 5/16" and 3/8" Plyscord is applied with 6d common nails, spaced 6" apart at edges and 12" elsewhere. With 5/8" Plyscord, use 8d nails, similarly spaced.

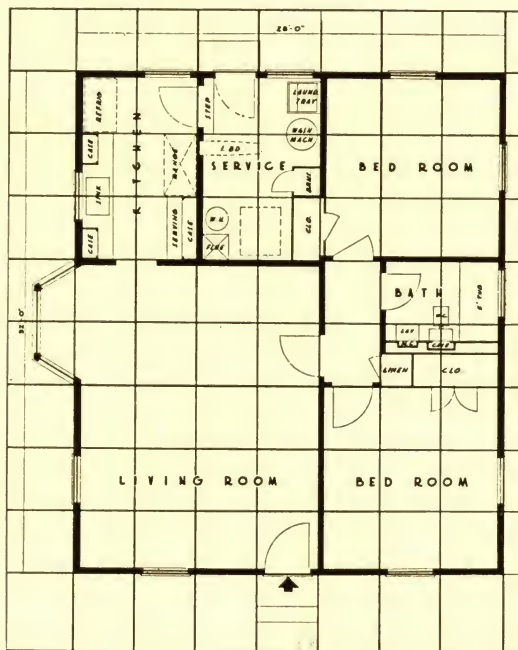
Exterior plywood should be applied with non-corrosive nails, using 6d for 3/8" or 7/16", and 8d for thicker material.

**INTERIORS:** Use Ply-wall, the popular Wallboard grade.

For maximum economy, the 1/4" thickness is used with satisfaction, but many prefer the 3/8" panels for still greater sturdiness.

The Plypanel grade (Good-1-Side) is used when the finest appearance is desired with clear, one-piece face veneers.

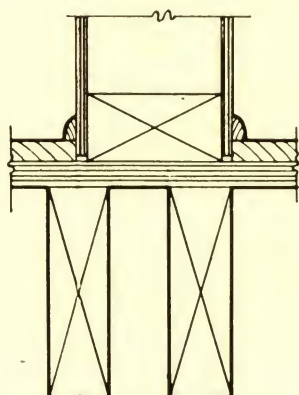
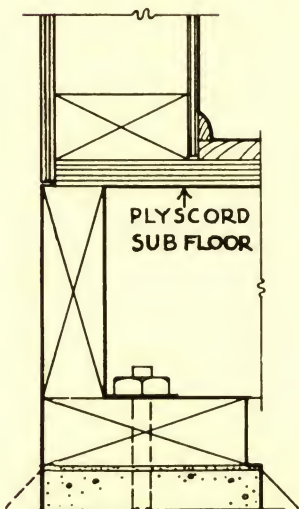
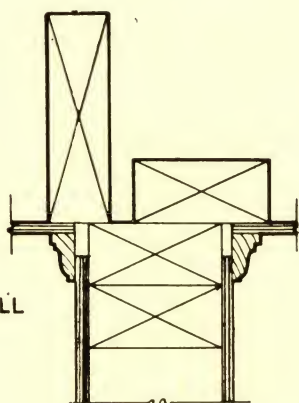
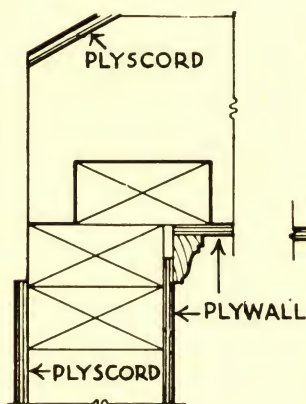
**EXTERIORS:** Use the Exterior grade (with the permanently waterproof glue line) 3/8" or thicker.



Shown above is a typical plan on which lines 4' apart have been drawn to form a grid. This grid shows where 4' wide and 8' long panels can be placed with a minimum of cutting. When Plyscord is used for sheathing or sub-floors, or both, it is obvious that if outside wall dimensions are an even multiple of 4', then 4' x 8' panels will cover the walls and the floor with no cutting or fitting except at openings.



## Construction Details



Section of Partition Wall running parallel to floor joists.

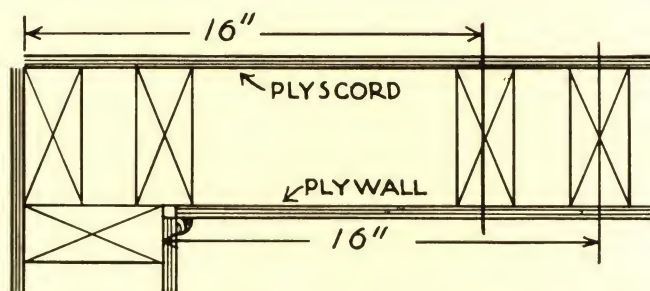
Section Exterior Wall running across joists. Joists or header is set  $5/16$ " outside of stud line to provide for  $5/16$ " Plyscord. This simplifies use of standard 4' x 8' sheathing, either horizontally or vertically.

"Stock" window frames, with 4-1/2" jamb widths, are readily adapted to Dri-Bilt with Plywood walls.

Simplest procedure is to have jobber or dealer, or builder at the job, rip the jambs and sills to desired width with a power saw.

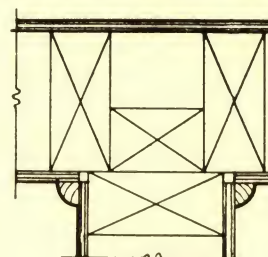
Many builders and architects prefer to use furring strips to secure the building paper to the wall sheathing. These strips build out the wall to full frame thickness, and have added advantage of creating a double air space for still greater insulation value.

At least one national frame manufacturer has a 3/4" removable jamb liner on all standard frames in order to avert any ripping of the liner.

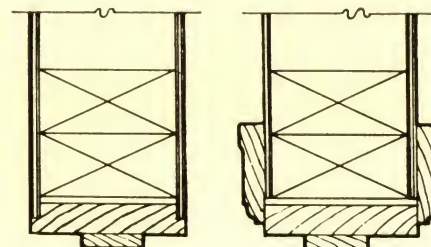


Above is a plan at the corner of a typical Dri-Bilt with Plywood house. With Plyscord sheathing or sub-flooring, the wall stud nearest the corner post should be centered 16" from the outside edge of this post, so that with 16" stud spacing beyond, all panels will have their edges fall at stud or joist centers.

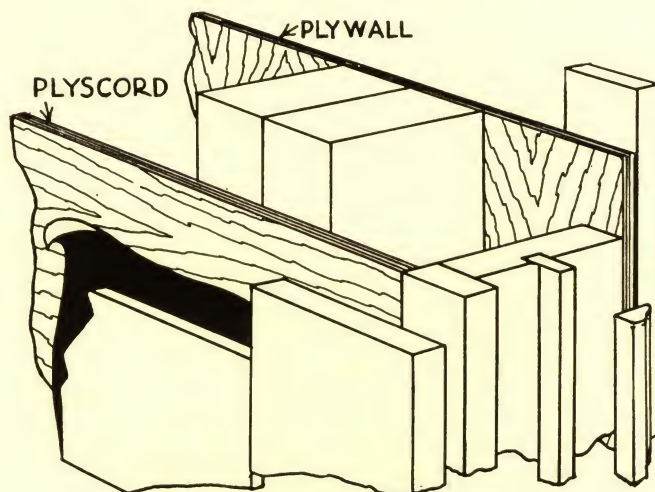
With Plywall interiors, the 16" stud spacing should start from the corner, at the face of the abutting wall. This will center the third stud exactly 48" along the wall, to coincide with the edge of the 48" panel.



Plan where partition and outer wall meet.



Door Jamb Details





## *Suggested Time-Savers for Architect and Builder*

### SIZES:

Plywood panels, 48" x 96" in size have proved most practical in residence construction, but several smaller sizes are also standard or stock to meet demands, and also 9' and 10' lengths.

Plyscord (sheathing), 5/16", 3/8", or 5/8" thick, 32" and 48" wide, 96" long.

Plywall (wallboard), 1/4", 3/8", or 1/2", all 48" wide; 5', 6', 7', and 8' long.

Plypanel (Good-2-Sides, Good-1-Side, and Sound-2-Sides) is available in the same sizes as Plywall, and in a number of others.

The stock panel widths, 48" and also 32", as well as the popular 8' length, are multiples of 16", the accepted spacing for studs and joists.

Consequently, edges of panels will naturally meet at centers of studs and joists, when spacing is regular and *provided* one or two simple steps are taken.

By spotting window and door openings between grid lines, i. e., within 4' panels, only one panel instead of two need be cut. This permits all headers through the house to have same length, allowing quick economical cutting.

Furthermore, the extra cost of jogs and offsets in a floor plan can be minimized by planning so that the face of the wall comes at a grid line. The upper figure on page 3 shows the grids at *outside* face of wall studs, and is an ideal layout wherever Plyscord sheathing for walls and sub-floors predominates over Plywall panels for interior walls and ceilings. See also lower figure on page 3.

*Grid lines at inside face* of walls are desirable when interiors are Dri-Bilt with Plywood.

This means 4' x 8' panels will cover ceilings with little or no cutting; the same thing applies to wall panels. Also stock cupboards, 48" wide, or cases in 16" multiples can be fitted into such a layout.

## *Modern Finishes of Surpassing Beauty*

Dri-Bilt with Douglas fir plywood is suitable for various types of interior finish, depending upon design, personal preferences, and utility.

*Natural Finishes*, using the new technique that softens and subdues the grain contrast, but at the same time reveals the inherent beauty, are advocated by leading architects and decorators.

The technique is simple to execute. It consists either of applying a commercial bleach, followed by light sanding and shellac; or of applying a very thin, white lead and oil coat, that is really a stain rather than a primer, followed by shellac. Over the shellac a clear varnish with a trace of white lead, or a thin colored, lead and oil coat,

wiped to uniformity will produce a finish of exquisite beauty, comparable to paneling costing from 5 to 10 times as much.

Reddish, brown, or imitation mahogany stains on Douglas fir plywood are not recommended.

*Paint*—Where smooth painted walls are desired, standard lead and oil, or an aluminum primer with lead and oil, should be used in accordance with standard practice. Special care should be taken to have panels thoroughly dried to about same moisture content they will ultimately attain.

A canvas or sheeting fabric is often used by



experienced decorators over the plywood for a flawlessly perfect paint finish.

*Wallpaper*—Plywood is an ideal base for wallpaper. Future cracking is eliminated. A 3/4-pound deadening felt or muslin is applied first, followed by the wallpaper.

### JOINTS AND PANEL EFFECTS

For natural or light stained walls, architects recommend either a simple Vee-joint between panels, or a delicate molding.

Moldings may be superimposed on panels in

various panel designs, both rectangular and curved.

Flush joints under paint are improved by filling with a white lead paste, or Swedish putty (spackle), or better still by using the Fir-stix method of tacking strips of plywood to face of studs, and then gluing panels to these strips, to create a continuous wall.

Application of the 4' grid system to interior walls and ceilings will add symmetry to any panel design, especially if windows and doors are placed between, rather than overlapping, the grid lines.

## Official Tests, Approvals and Acceptances

### RIGIDITY TESTS:

The U. S. Forest Products Laboratory, Madison, Wisconsin, in a comprehensive series of wall tests, has demonstrated that even 1/4" thick Douglas fir plywood well nailed to a frame, makes the wall 5.9 times as rigid as 25/32" horizontal sheathing, and 40% more rigid than 25/32" diagonal sheathing, previously recognized as the best.

This property of rigidity is your best insurance against hurricane damage, earthquakes, ground settlement and subsidence, and other unusual stresses that may test a house to the limit.

UNIFORM BUILDING CODE of the Pacific Coast, recognized as a model throughout the country, and adopted by 220 cities and counties from New York to Washington and from Florida

to California, has officially approved 5/16" plywood for sheathing, 5/8" for flooring, and for other uses.

F. H. A., in Technical Division Rulings Nos. 61 and 67, June, 1937, which are supplemental to all "Minimum Construction Requirements" from the various state offices, accepts 5/16" plywood sheathing for walls and roofs; 5/8" for sub-floors, and 1/4" for interiors, provided nailing is adequate and that construction otherwise is in accordance with good building practice.

In addition, as of November, 1938, F. H. A. accepts Exterior plywood for house siding and exteriors when panels are grade-marked with Douglas Fir Plywood Association symbol, "EXT-DFPA," and applied as specified in F. H. A. Technical Circular No. 1.

## Experience

"Dri-Bilt with Plywood" construction has proved itself in the acid test of practical experience.

*Plyscord Sheathing* for walls and roofs, and for

sub-flooring provide structural superiority, at a definitely lower cost. This lowering of costs, builders testify, is a result of labor and material savings, often as much as 50%.



"Plywall" interiors constitute the happy answer to those who for years have been seeking a dry wall construction, that would be durable and puncture-proof, air-tight, and of attractive appearance.

"Exterior" plywood for residential siding, architecturally versatile, as well as structurally valuable, has achieved nation-wide prominence in the spectacular use of millions of square feet of it at the Golden Gate International Exposition on Treasure Island in San Francisco Bay. Used on exterior covering on scores of these buildings, it has proved itself an indispensable material with important architectural and engineering properties.

On the nation's largest private housing project near Pittsburgh, Pa., where 300 houses are being completed (February, 1939) and where 900 more are contemplated, the builders, Gilbert and Varker, after two years' intensive research, selected Douglas fir plywood for their exterior wall and roof sheathing, and for all interior walls and ceilings. "A better house for less money" is the reason.

Popularity of these modern homes is attested by their being sold before completion.

Dri-Bilt with Plywood has arrived!

## Plans and Drawings

Your architect can design your future home, whether mansion or cottage, utilizing the modern "Dri-Bilt with Plywood" principles.

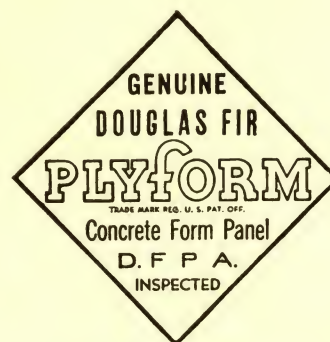
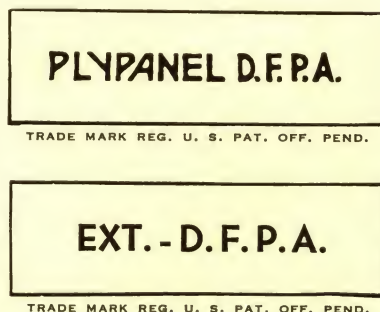
Ask your local lumber dealer (or write the National Plan Service, 1315 West Congress Street, Chicago), for a copy of "Economy-Bilt Homes," a booklet of 50 attractive perspectives and floor plans.

Select the house you want, being sure to specify "completely Dri-Bilt with Plywood," including plywood sheathing and sub-flooring.

Your builder can get a guaranteed material list and complete working drawings from the dealer and build your house quickly and economically, following the "Dri-Bilt with Plywood" method.

There's a suitable grade of Douglas Fir Plywood for every use.

Here are the official Association grade-marks and trade-marks, appearing on plywood manufactured in strict accordance with U. S. Commercial Standard CS45-38:



BE SURE YOUR DRI-BILT HOUSE IS BUILT WITH ASSOCIATION  
GRADE-MARKED PANELS





# dri-bilt

**WITH PLYWOOD**



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MARK

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OFF. PEND.

**PLYPANEL D.F.P.A.**

FOR  
CASEWORK  
AND FINE  
PANELING



**PLYSCORD**

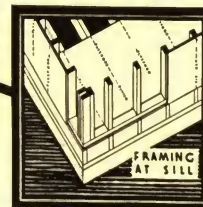
FOR  
SHEATHING  
AND  
SUB FLOORS

**PLYWALL**

FOR  
WALLS AND  
CEILING S



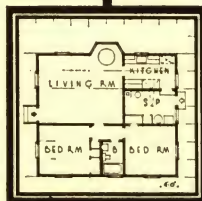
CEILING  
FRAMING



FRAMING  
AT SILL

**PLYFORM**

FOR  
CONCRETE  
FORMS AND  
SUB FLOORS



**EXTERIOR D.F.P.A.**

FOR  
SIDING AND  
OUTSIDE USE

## DOUGLAS FIR PLYWOOD ASSOCIATION

TACOMA BUILDING • TACOMA, WASHINGTON

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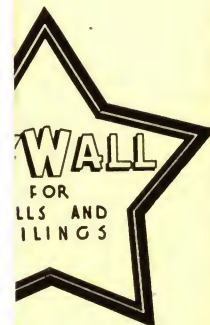
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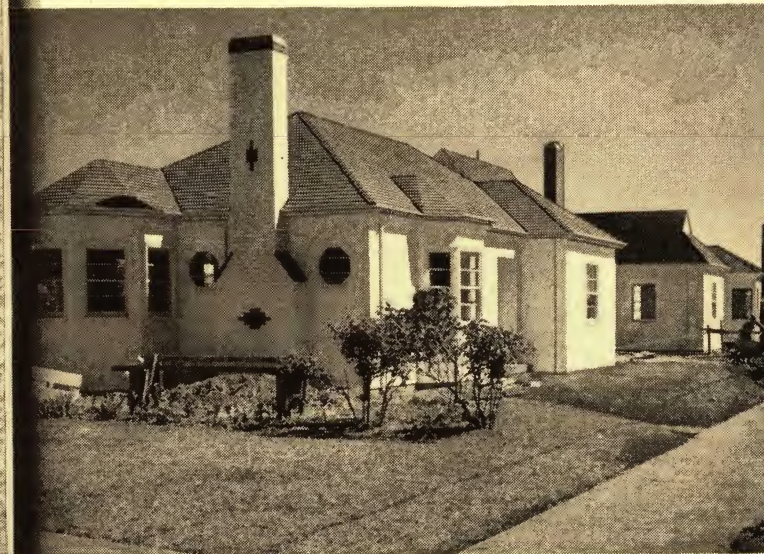
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